**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 1: January - March**

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| PROVINCE: |  |
| DISTRICT: |  |
| SCHOOL: |  |
| TEACHER’S NAME: |  |
| DATE: |  |
| DURATION: | 1 Hour |

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| 1. **TOPIC: GEOMETRY OF 2D SHAPES:** Similar and congruent 2D shapes **(Lesson 7 )** |

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| **CONCEPTS & SKILLS TO BE ACHIEVED:**  **By the end of the lesson learners should know and be able to**  recognise and describe similar figures comparing shape and size. |

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| 1. **RESOURCES:** | DBE workbook 1, Sasol-Inzalo Book 1, textbooks | |
| 1. **PRIOR KNOWLEDGE:** | * Ratio * 2D shapes | |
| 1. **REVIEW AND CORRECTION OF HOMEWORK** (suggested time: 10 minutes) | | |
| 1. **INTRODUCTION** (Suggested time: 10 Minutes) | | |
| **Activity**   1. Refer the learners to page 72 of the DBE workbook 1. 2. Ask them to name the pictures they see in question 1. 3. Ask them to name the pictures they see in question 2. 4. Ask them how the pictures in question 1 compare to those in question 2.   Lead learners to the observation that the pairs in question 1 are congruent whereas those in question 2 are similar. [The meanings of congruent and similar are given at the top of page 72.] | | |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities**  **(Learners are expected to : )** |
| **Activity 1**  Look at the following figures and answer the questions below:   |  |  |  | | --- | --- | --- | | **GROUP A** | **GROUP B** | **GROUP C** | |  |  |  |  * 1. Which group has a pair of similar 2D shapes? Provide a reason for your answer.   2. Which group has a pair of congruent 2D shapes? Provide a reason for your answer. | | study the figures and  answer the questions |
| **Activity 2**  2.1 Write down the letters of all the shape(s) that are similar to shape B.   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **B**  **A**  **C**  **D** |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |   2.2 Which shape(s) are congruent to the shape B?  **Activity 3**  **NB** Learners will require grid sheets to do this activity   1. Draw ∆ABC with the following measurements: AB = 4*cm*, BC = 2 *cm* and AC = 5 *cm*  * Multiply each side by 2 and write down the dimensions. * Draw the triangle with the new dimensions and name it PQR.   Your diagrams should be similar to the ones below.  Q   1. Compare the two triangles. What are your observations?   **NB**: Figures that have the same shape are similar to each other.  Similar figures may be different in size, but will always have the  same shape. | | study the figures and  answer the questions  Learners draw, enlarge and compare the two triangles. |
| 1. **CLASSWORK** (Suggested time: 15 minutes) | | |
| The polygons below are similar.  C  B  A  Z  Y  X  Determine the sizes of the following: | | |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) | | |
| 1. **Emphasise that**:   Shapes that have the same form, are said to be similar to each other. Similar shapes may be different in size, but will always have the same shape  If two angles of one ∆ are equal to the two angles of another triangle, then the triangles are similar  The primary purpose of Homework is to give each learner an opportunity to demonstrate mastery of mathematics skills taught in class. Therefore, Homework should be purposeful and the principle of ‘Less is more’ is recommended, i.e. give learners few high quality activities that address variety of skills than many activities that do not enhance learners’ conceptual understanding.  Carefully select appropriate activities from the Sasol-Inzalo workbooks, workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.  **Recommended homework:**  DBE workbook 1, pp 72 – 73, No. 3, 4, 5 and 6 | | |